Dream team or nightmare? Collaboration in project teams

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Dreamteam or Nightmare? Collaboration in Project Teams

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Abstract

Contemporary organizations increasingly implement project teams. Often interdisciplinary by nature, project teams unite team members from different departments or areas of expertise within an organization who typically work on non-routine tasks. As such, project teams face a number of inherent challenges. In particular, collaborative task accomplishment is often subject to interpersonal conflict. This chapter highlights the specific challenges faced by project teams and showcases different approaches for conflict management and team development in project teams.

10.1 Challenges in Project Teamwork

Project teams are usually created to operate in parallel to and on top of an existing organizational structure. That is, their team members usually do not work exclusively on the project, but rather still have other responsibilities and obligations within their departments of origin. For example, an interdisciplinary project team consisting of product design engineers, controllers, and marketing experts might

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collaborate for two full days per week, whereas team members return to their respective departments to spend the remainder of their working hours on their regular tasks. Project teams are often formed to pursue **non-routine goals**, such as developing new products or initiating and implementing organizational change processes. This makes them inherently **temporary and unique, and the novel tasks they are working on are rarely structured and often fraught with risk**. As a result, any project team will likely come up against a number of challenges: The members of the project team are lifted from diverse departments and disciplines at short notice and required to convene outside of their regular everyday responsibilities to form a functioning team and to collaborate towards achieving a shared project goal. The complexity of projects, the cross-functionality inherent in project team composition, the temporary nature of team membership, fluid team boundaries, and the fact that the project team remains embedded within the wider organization all pose unique challenges that may impede their effective work (Edmondson and Nembhard 2009). Moreover, many projects are characterized by **time pressures** and by the **pressure to succeed**. These features of project teamwork make it difficult, yet essential to identify a project team's strengths and weaknesses in terms of the crucial factors inside and outside of the project that can promote or inhibit project team success. Identifying such strengths and weaknesses as early as possible can lay the ground for efficient, harmonious collaboration in project teams.

The following sections will elaborate on the internal and external conditions needed for successful collaboration in project teams. We will discuss the potential problems and pitfalls that can lead to conflict in project teams and describe how a systematic team diagnosis can identify strengths and weaknesses of project teams in order to provide the basis for meaningful team development measures.

10.2 Psychological Background: Critical Factors for Successful Collaboration

Project teams differ from regular, long-term teams. Whereas regular teams are part of the enduring organizational structure, project teams are temporary in nature. The members of project teams need to balance their project work and their regular duties and responsibilities in the organization. Most projects exist in parallel to the existing organization, such that project team members can only spend part of their working hours on project tasks. Figure 10.1 illustrates this setup in a sample project involving team members from design engineering, assembly, sales, and shipping (for a detailed description of project organization, see De Marco 2011).

The specific organizational characteristics of project teams imply that they need to define, clarify, and agree upon their goals as an essential first step. Group cohesion and mutual responsibility, which are common features of regular work teams within most organizations, will have to be developed deliberately in project teams. Moreover, project team members need to negotiate priorities, as they face the daily challenge of balancing their project work and their regular responsibilities

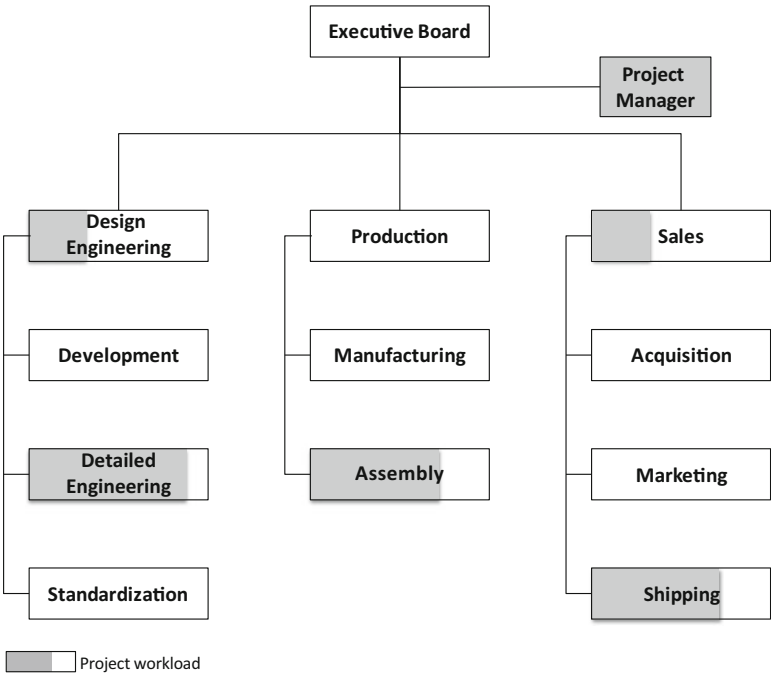

Fig. 10.1 Typical project work within existing organizational structures

within the organization. Coordinating project efforts among project team members requires multiple negotiations to mediate different interests and demands. Bouwen and Fry (1996), among others, have coined the term "role ambiguity" in this context. In project teamwork **role ambiguity** occurs particularly when non-routine project tasks have to be accomplished by combining the skills and expertise of team members from different departments within the organization, while team members simultaneously need to juggle their routine tasks and responsibilities. Due to these contextual conditions in project teamwork **task accomplishment** has been identified as a specific **challenge**. Similarly, ensuring group cohesion and taking responsibility can become difficult factors in project teams (Kauffeld 2001).

10.2.1 Internal Success Factors

The factors within project teams that determine their project's success can be visualized with a **pyramid model** (Fig. 10.2). The four dimensions depicted in this model are characteristic features of well-functioning teams. At the basis of the pyramid, two factors describe the **structural orientation** of a team: **goal orientation** and **task accomplishment**. Building on this basis, two additional success factors describe its **personal orientation**: **cohesion** and **taking responsibility**.

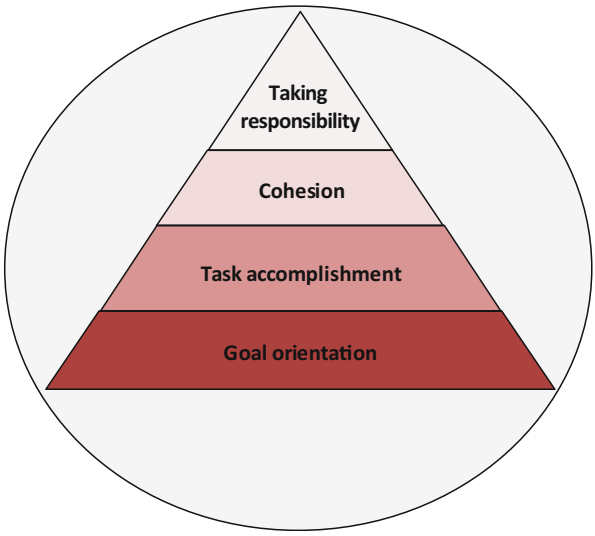

Fig. 10.2 The team pyramid (Adapted from Kauffeld 2001, p. 138)

These four factors describe the internal team environment; the external environment is represented by the circle surrounding the team pyramid in Fig. 10.2.

Goal Orientation A shared sense of purpose is the foundation for teamwork in the pyramid model. A team can only function well if all team members have agreed on clear goals and if the requirements of their tasks are unambiguous for them. Without such foundations, teamwork cannot be successful. If some team members are unaware of the team's goals and task requirements, or if the team goals are not accepted by all team members alike, team members will likely aim for different, potentially incongruous goals or follow their **individual interests** rather than working towards shared **team goals**. Individual goals may even contradict the team's or the organization's wider goals. Therefore, team goals need to be **stated precisely**, and they need to be **reachable**. To improve goal orientation, teams should have **criteria for assessing goal attainment**, such that team members can take adequate steps for improvement when necessary.

Task Accomplishment When a (project) team has agreed on team goals, task accomplishment becomes more likely. However, setting goals and getting people oriented towards those goals as a team does not necessarily always result in efficient task accomplishment, particularly when the team is working on a complex project. In order to collaborate efficiently, each team member needs to have a clear understanding of his or her **priorities** and **tasks** as a member of the project team, in addition to having unambiguous goals. As a part of their collaborative task accomplishment, team members need to coordinate their efforts and share information when and where it is needed.

Cohesion When the second "layer" in the pyramid model has been reached, meaning that a project team is actively engaged in accomplishing their tasks,

cohesion can develop. Mutual **trust**, **support,** and **respect** are signs of high group cohesion in a team. Experiences of solidarity and team spirit are more likely to occur when a team successfully coordinates its members' efforts. Similarly, team members are more likely to be satisfied with their project team when the team manages to **keep goal and task-related conflicts in check**. When different goals contradict each other, when priorities are ambiguous, or when team members' efforts are not coordinated well, rivalry and misunderstandings become inevitable. Research has linked cohesion to improved team performance (e.g. Tekleab et al. 2009). Trust has also been identified as an influential factor in the context of team cohesion and involvement (Ferres et al. 2004).

Taking Responsibility At the top of the pyramid (Fig. 10.2), teams have reached a stage in their collaboration where they actively assume responsibility for their work as a team. Teams that accept responsibility are characterized by high levels of involvement, dedication, and commitment. The three lower 'layers' in the pyramid model form the basis for taking responsibility: When goals and priorities are clear, when team members respect and help each other, when they contribute all relevant information, and when they view themselves as a team, it becomes more likely that they will **take responsibility**. Empirical findings show that teams are indeed more prone to taking responsibility in terms of being proactive when their members **support and respect each other** (Williams et al. 2010). Similarly, a recent study has identified trust in **co-workers** and **team commitment** as important antecedents of positive extra-role behavior toward one's team (Lehmann-Willenbrock et al. 2013b). The role of taking responsibility has been studied at the micro-level of team interaction dynamics as well. Research on team communication processes during organizational meetings shows that proactive behavior, such as showing interest in change or planning actions, is rare, but all the more valuable for team and organizational performance outcomes (Kauffeld and Lehmann-Willenbrock 2012). Many teams spend their meeting time complaining instead of taking responsibility, often getting caught in negative spirals (Lehmann-Willenbrock and Kauffeld 2010). When this happens, team productivity and innovation will suffer, and the group mood turns negative. By contrast, more proactive meeting behavior leads to better team results and an improved group mood (Kauffeld and Lehmann-Willenbrock 2012; Lehmann-Willenbrock et al. 2011b).

10.2.2 External Success Factors

Focusing on the intended goal, accomplishing the team's tasks, creating cohesion, and accepting accountability and responsibility are internal factors that impact any project team's success. However, **external conditions** are critical for successful collaboration in project teams as well. In Fig. 10.2, the circle surrounding the team pyramid symbolizes the team's environment. For example, management, the flow of information in the organization, and organizational rules and regulations can

have a considerable impact on a project team's collaboration. Problems arising in the external environment of a project team will also affect internal team conditions.

Previous research has identified specific external conditions as drivers of project success or failure. For example, **cross-project collaboration** or **network embeddedness** (Grewal et al. 2006) can be critical for project success. Project teamwork often requires **cooperation** or **task coordination** across organizational divisions or even across entire organizations. Frequently, different sub-projects need to be coordinated, or there might be several project teams working on different aspects of one overarching problem simultaneously. Especially when a project is more complex, project teams often depend on other teams or departments within the organization to be able to accomplish their own project tasks. These interdependencies may give rise to conflict between different teams.

Another external factor concerns the allocation of resources. Project failures are often due to a lack of **resources** that constitute a source of conflict. Project managers may need to use political skills to navigate projects around such issues (so-called "politicking"; Peled 2000).

Furthermore, whether or not a project team can perform well may also depend on the internal and external **stakeholders** of the organization. Some projects literally live or die depending on their commissioning entities or **customers**. For example, partial results, interim reports, or suggestions concerning the aims and direction of a project are often subject to review by customers. As customers' requests and preferences are usually not specified precisely at the beginning of a project and may change throughout its later course, collaboration between the project team and external customers can be an ambiguous process, which may develop positively, but which may also result in a negative downward spiral (see an illustrative example from virtual project teamwork in Chap. 18, Hertel & Orlikowski).

10.2.3 Conflict in Project Teams

Similar to the distinction between structural and personal orientation in the team pyramid model (Fig. 10.2), two kinds of potential conflict can be found in project teams: **task conflict and relationship conflict** (e.g. Lehmann-Willenbrock et al. 2011a). Task-related arguments in teams – for example, in terms of discussing the best possible alternative for solving a problem – can be described as **functional conflict**. On the other hand, **dysfunctional conflict** or affective conflict is characterized by distrust, fear, anger, frustration, and similar negative affective experiences (Pelled 1996).

The Effects of Conflict

Both task-related and relationship or social conflict can impact team performance and team members' satisfaction negatively (De Dreu and Weingart 2003). However, **moderate task conflict** may also have beneficial effects for the team, as long as relationship conflict remains limited (Jehn and Chatman 2000). For example, a moderately intense task conflict could arise when team members disagree about the

right software choices for solving a specific problem. The resulting argument or discussion can aid decision-making in the team by selecting and elaborating the best solution for the specific problem. However, there can be other, personal motives at the core of an apparent task conflict (such as personal dislikes or animosity between team members that are not expressed openly, but rather 'vented' via supposed task-related differences). In that case, the conflict will no longer be considered moderate, because what was assumed to be a task conflict can spill over and turn into a relationship conflict.

Presumably, **moderate task conflict can be beneficial**, because diverse opinions and ideas can promote team performance. Indeed, the benefits of moderate task conflicts have been shown in the context of group problem-solving and team creativity (Laughlin et al. 2003; Paulus and Nijstad 2003).

> ▶ Effective decision-making processes in a project team largely depend on the team's ability to tolerate competing opinions and approaches and to generate mutual decisions that are acceptable for all team members (Sambamurthy and Poole 1992).

For this reason, task-related conflict should be handled carefully. Teams need to consider different opinions and ideas, while at the same time ensuring group cohesion (Jones 2005). If a project team manages to cope well with task conflict, the quality of the solutions generated by the team will be higher than the quality of individual solutions (Lewicki and Litterer 1985). However, if a project team fails to cope with or integrate diverse opinions or opposing ideas, task conflict can turn into harmful relationship conflict. Such developments can pose a threat to project team success, as **relationship conflict** impairs the team's performance particularly when working on non-routine tasks (Lehmann-Willenbrock et al. 2011a).

Thus, structural and personal orientation, or task and relationship conflict, are mutually interdependent. When task conflict is suppressed or buried, it can escalate and incur relationship conflict. Moreover, relationship conflict between individual members of a project team can affect task accomplishment and lead to additional task conflict.

When dislike grows and team members feel increasingly irritated or annoyed with each other, team cohesion will suffer. Trust in teams has an impact on this development (cf. Tindale et al. 2005): Diminishing trust between team members can lower the threshold for relationship conflict in particular. At the same time, teamwork can remain constructive when teams manage to uphold co-worker trust (e.g. Ferres et al. 2004).

One simple reason why relationship conflict is harmful for project teamwork is the fact that solving social conflict between team members takes time and effort, thus consuming resources that are then no longer available for accomplishing the team's actual tasks. Moreover, relationship conflict can trigger stress and feelings of anxiety, and can impair the team's critical thinking abilities. Relationship conflict frequently leads to attributions of hostile motives to other people's behavior

as well as an **escalation of the conflict** (Jones 2005). For example, in a well-functioning team with little relationship conflict, a mistake made by a team member will likely be attributed to a simple error, rather than hostile intentions. The team will proceed to focus their attention on correcting the error. In a dysfunctional team with pronounced relationship conflict, on the other hand, the team member who "caused" the error will have to face his co-workers' outrage and possible attempts to retaliate or take revenge.

▶ Conflict in a project team can impair team productivity and performance. Suppressed task conflict can escalate and result in relationship conflict.

Capitalizing on Conflict

To ensure well-functioning teamwork and high team performance, project managers and project teams need to find the right **balance** between permitting task conflict as a source for generating more ideas and creative solutions on the one hand and preventing or at least detecting the escalation of task conflict turning into relationship conflict as early as possible. Successful **conflict prevention** requires a thorough **team diagnosis** that identifies the strengths and weaknesses of the team. Team development interventions or long-term team coaching can build on those results and leverage team resources.

10.3 Footholds for Improvement: Team Diagnosis and Team Development

10.3.1 Team Diagnosis

Team diagnostic surveys can shed light on the everyday reality of a project team and point out potential areas for team development. An example for a team diagnostic survey is the Team Work Questionnaire (TWQ, Kauffeld 2004). The TWQ is conceptually based on the team pyramid model described above (Fig. 10.2). Applying a set of 24 items, it measures the four dimensions of goal orientation, task accomplishment, cohesion, and taking responsibility. Team members rate their agreement with each of these 24 items on a scale ranging from 1 to 6 (e.g. for task accomplishment: "We provide all important information to the team" versus "We keep information to ourselves"). The results of team diagnostic instruments help identify strengths and weaknesses of a (project) team. As such, they offer a basis for initiating conversation about specific aspects of working together in a project team, and for discussing and implementing ideas for improvement in project teamwork. In this context, it is highly recommended to **integrate** a team diagnosis into a **regular team development process** within the organization. However, team diagnosis can also be the starting point for a

self-organized development process initiated by the team. In sum, there are four possible **aims of team diagnosis:**

1. Providing a structural basis for team development processes by measuring essential work-related topics in project teams.
2. Identifying pitfalls or weaknesses concerning group cohesion and collaboration and deducing team-specific interventions for improvement.
3. Raising employees' and supervisors' awareness of potential problems and solutions for efficient project team collaboration. Through increased awareness of these issues, the entire organization can benefit (beyond the project team).
4. Developing best practice processes that provide the organization with important hints concerning efficient project work design.

A typical **team diagnosis** can be described with **three characteristic steps**:

A Sample Team Diagnostic Procedure

1. **Information:** As early as possible in the process, team members need to be informed about the purpose and scope of the team diagnostic survey. Similarly, they need to be educated about the process following the diagnosis in order to be motivated to participate. It is important to emphasize that participating in any written survey is voluntary and that any individual data will be kept strictly confidential.
2. **Survey completion:** Team members are asked to complete the survey by themselves, without discussing or sharing their answers with their fellow team members. This procedure ensures that differing views and opinions are captured realistically.
3. **Feedback:** The surveys are evaluated and a presentation of the project-specific results is prepared. The specific results of the team are easier to evaluate when they can be compared against diagnostic results from previous/other projects.

Following the team diagnosis, the results need to be presented to the project team and project manager. This feedback session lays the groundwork for a collaborative exploration of the results and their causes, which can then yield insights into possible improvements. This exploration initiates the team development process.

As an alternative to traditional surveys, team diagnosis can also be based on objective measurements of project teamwork in critical situations. One example of objective data concerns the observation of team members' behavior during team meetings, in which team members are required to pool their individual expertise for solving problems. Analyzing functional and dysfunctional behavioral processes in team meetings offers a unique opportunity for highlighting the strengths and weaknesses of a team and can provide a powerful tool for initiating team reflection (see Lehmann-Willenbrock and Kauffeld 2010).

10.3.2 Team Development for Project Teams

Team researchers describe team reflection skills as an essential component of team development, because **reflection heightens team effectiveness** (West 2004). Team reflexivity means that a team continuously reflects on and modifies its collaborative functioning (e.g. Schippers et al. 2008). For project teams who navigate in a complex, dynamic task environment in particular, team reflection skills become crucial for promoting the accomplishment of their tasks and for challenging familiar habits and processes with a critical eye. Thus, increased team reflection is an important goal for any team development intervention.

Team diagnostic results provide a basis for **team reflection processes**. During the feedback session, project team members and project managers should strive to gain insights into their strengths and weaknesses. Together, they should develop **practical solutions and action plans** that will afterwards be implemented by the project team. Topics that are not problematic for the team can be dealt with quickly, whereas more difficult topics or critical issues should be discussed in detail. However, some time should also be spent on reflecting upon those aspects that are indeed going very well in the team's work or those things that the team is proud of achieving or having achieved together. The latter is particularly important for achieving a resource-oriented or solution-focused state of mind in the team. The following sample questions can guide a team through their reflection process.

Sample Questions for Reflecting on Team Collaboration

- What is positive about our collaboration? What is going well?
- What is not going so well? Which aspects of collaboration should we improve?
- What are the reasons for misunderstandings/conflict?
- What can we do to become a better team?
- What can we learn from our previous experience together?
- Which conclusions can we draw for our future as a team?
- Which specific steps will we take as a project team?
- Which consequences does every team member see for himself/herself personally?

Several weeks after the team reflection workshop, a follow-up session should be arranged. In this follow-up session, the team are asked to **evaluate** the extent to which the steps planned in their workshop have actually been implemented and the extent to which these steps have actually achieved the desired outcomes. After such an evaluation, the team may need to revise their action plan or integrate new action items. Evaluating the success of such a team reflection is an important measure for making sure that insights gained and actions planned in the team reflection workshop are actually transferred to their everyday work (e.g. Kauffeld and Lehmann-Willenbrock 2010).

Some teams will be able to administer a team diagnosis and initiate subsequent team development by themselves, while others will require a professional

intervention involving an external counselor (Jones 2005). Receiving support from a **project coach** or team counselor can be particularly helpful for organizations that have little experience with team diagnosis and/or team development practices. An external project team coach can facilitate team processes and conflict management. Moreover, a team coach can provide substantial psychological skills in team diagnostic methods as well as conversational techniques that promote team development.

When team members are guided through a systematic, structured reflection and analysis of their collaboration, this can yield important hints about potential improvement. The **approaches used for team reflection** are manifold, as exemplified here.

Approaches to Team Development (Adapted from West 2004)

1. **Team start-ups** are team interventions that begin when the team first convenes. Rather than waiting for a crisis to occur, team start-ups take a preventive approach to team development by including team building as a standard element of forming a new team.
2. **Regular formal reviews** can enable the team to apply a meta-perspective concerning their collaborative processes. At regular intervals (e.g. 1 or 2 days every 6 months), the team reflects on its success, achieved goals, difficulties, and the quality of team communication.
3. **Working on a known task-related problem**, as a third possible approach to team development, concerns problem-solving workshops that aim to solve very specific problems that were defined prior to the workshop. The team takes a "timeout" for the team development intervention in order to work on their problem and derive measures for solving it. This type of team development intervention is also used by experts for teaching Total Quality Management (TQM) or Continuous Improvement Process (CIP) techniques.
4. **Identifying problems**: Some team development interventions are aimed at specifying relevant problems in the team. Prior to the intervention, there is information about inefficient teamwork, whereas the reasons for this inefficiency are not clear. In that case, team interventions can help clarify the causes of problems in the teams in order to achieve a shared understanding of the team situation. On that basis, the team can then generate ideas and strategies for solving their problems.
5. **Social process interventions** focus on intra-team relationships, on social support within the team, on the team climate, or on conflict management. These interventions are aimed at improving the social climate within the team and ensuring team members' well-being. For example, when a team suffers from a lack of social support, a social process intervention can train the team members to consult each other and to provide peer support.

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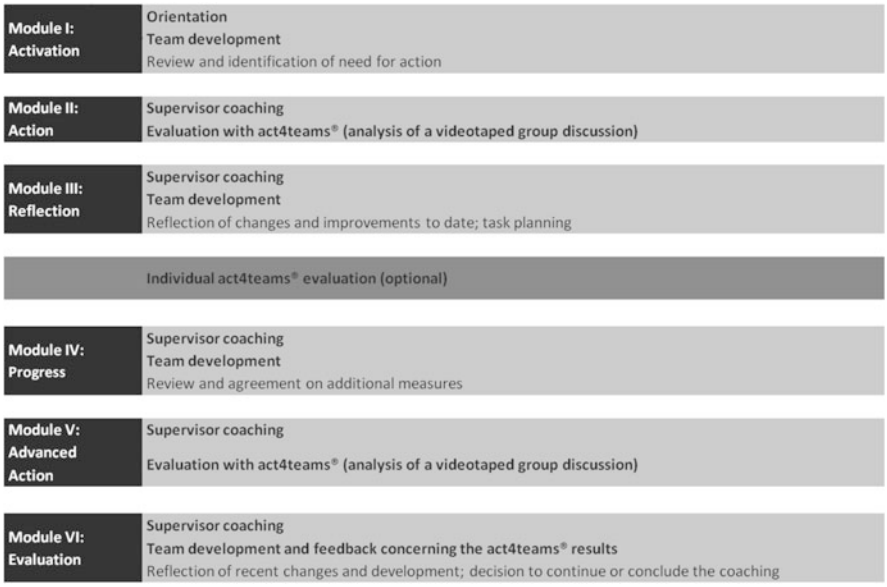

Fig. 10.3 The act4team-coaching® process (Translation; original source: 4A-Side, www.4a-side.com)

6. **Continuous team coaching** is a new trend in team development. Team coaching means that a team is accompanied by a coach on a regular basis. For example, act4team-coaching® is a continuous team development tool that focuses on team interaction processes and highlights potentials and pitfalls by means of real behavioral observations (Lehmann-Willenbrock and Kauffeld 2010). An initial interaction assessment serves as a basis for evaluating where a team stands at a given point in time, followed by subsequent reflection and optimization periods during which the team is actively involved in making changes and process and result evaluations used to point out where these changes have been successful and where there may still be some work to do. Team coaching interventions often include the team's environment as well, for example by including supervisory coaching elements. Figure 10.3 shows the act4team-coaching® process as an example.

10.3.3 Conflict Management in Project Teams

To efficiently cope with disagreements or conflicting opinions in a team, team members need interpersonal skills such as the ability to show genuine interest for others' ideas and opinions, and the potential to challenge and reconsider their own ideas and attributions (Edmondson and Smith 2006). These interpersonal skills are

not always readily available in the organizational context (Edmondson and Nembhard 2009). In light of the special challenges illustrated above, **interpersonal skills and strategies for coping with disagreement** and resolving intra-team conflict become especially important for project teams. Conflict can mark a turning point in team development that needs to be **managed carefully**. The final section of this chapter describes several possibilities for conflict management in project teams.

Conflict Management with the Help of an External Coach or Mediator

Addressing conflict openly tends to be an uncomfortable experience, even though team functioning is often severely impaired by conflict. When a conflict develops, teams are prone to search for quick, inferior solutions or ignore the conflict altogether. An external team **coach** or conflict mediator can be very helpful in this context. The coach should address contrasting opinions, misunderstandings, and conflict in the team, and should aim for a thorough elaboration and discussion of the underlying problems within the team. As opposed to the members of the project team, an external coach can make proposals and arguments 'scot-free'. This can provide important opportunities for the team to focus on solving their task-related conflict constructively, rather than getting caught up in negative relationship conflict spirals (cf. Jones 2005). Coaches or mediators usually guide the team through this process by providing an agenda and set of priorities.

> ▶ An external coach or facilitator can help a project team utilize task conflict in a constructive manner. To do so, task conflict needs to be revealed first. Second, coaches or consultants need to promote dialog and constructive controversy. Finally, the team should be enabled to consciously sustain and utilize task-related controversy by critically evaluating different alternatives for solving a problem.

Usually, identifying task-related problems will not suffice. Instead, the team should be supported in developing a vivid discussion culture concerning aspects of its tasks as a next step.

When a team suffers from **relationship conflict**, external coaches or consultants need to be particularly careful. Addressing problems directly, while often suitable in the case of task conflict, tends to be too blunt when the team is facing relationship conflict. In any case, the team should be actively involved in identifying the problems and underlying causes that have led to a conflict. Importantly, the team should learn to distinguish between structural issues in the team (i.e. aspects relating to goal orientation and task accomplishment as illustrated in Fig. 10.2) on the one hand and difficulties due to personal factors in the team on the other hand (i.e. cohesion and taking responsibility).

Self-management Practices for Managing Team Conflict

There are several possible approaches to managing conflict in project teams. First, individual team members can learn to become more aware of their own feelings and

attributions during the heated discussions inherent in relationship conflict. Instead of restraining emotions, team members should **reflect** on their reactions and **reframe** the situation (Edmondson and Smith 2006) For example, a situation in which other team members are initially perceived as hostile can be reframed in terms of different opinions and open disagreement. In order to become calm and capable of inquiring into different opinions and considering alternative explanations, **reflection** should take place as it happens, rather than in hindsight. For example, when involved in a conflict-ridden team discussion, team members can stop briefly to **examine their emotional reactions** to what is being said, to **acknowledge their own attributions** within the situation, and to '**cool down**'. Only then can alternative interpretations even be considered. Although these alternative interpretations may still be biased, they have the potential to stop negative downward spirals in team interaction (Edmondson and Smith 2006). When individual team members are too upset to reflect on and reframe what is happening, **others can step in and mediate**. However, in some cases where relationship conflict has escalated and/or involves the entire team, an external coach or group facilitator may be necessary.

Second, a project team can continuously **improve communication skills at the team level**. For example, team members can take turns in team meetings to ensure that different opinions and ideas can be contributed and discussed freely (i.e. become group facilitators for their own meetings; see Lehmann-Willenbrock et al. 2013a). The team as a whole can aim to create a positive meeting culture by allowing and considering emotional reactions and by exploring underlying problems. Research shows that functional team interaction processes are linked to positive team and organizational outcomes in a range of different industries (Kauffeld and Lehmann-Willenbrock 2012). Rather than ignoring relationship conflict until it is too late for such self-managing practices, the team can set a mutual goal to address misunderstandings and personal discomfort in the project team as early as possible.

Third, project teams can take measures to actively **manage their intra-team relationships**. This includes building trust by getting to know each other, developing awareness and initiating an explicit discussion of diverging opinions within the team, and carefully managing potential organizational faultlines (Edmondson and Smith 2006). Faultlines are hypothetical dividing lines that split a team into subgroups based on one or several characteristics. For example, organizational faultlines are at play in project teams when some team members have worked together before, such as employees from sales and shipping departments (Fig. 10.1), whereas other team members have not interacted with them previously, such as design engineers working with shipping employees. Faultlines are strongest when the subgroups are very different. In our example, a strong organizational faultline would exist when all male project team members are young engineers, whereas all female project team members are older marketing employees (faultline attributes: gender, age, and type of occupation). Teams with strong faultlines are particularly prone to experiencing conflict (Thatcher et al. 2003). Thus, project teams should acknowledge potential organizational faultlines when they start working together and invest time and effort into getting to know each other equally.

Project Managers' Potential for Managing Conflict

Leadership can play a critical role for organizing and facilitating project teamwork. Successful project leadership requires the ability to identify and understand problems in the team in order to intervene adequately (Rupprecht et al. 2010). Similar to team reflection discussed here as a basis for team development, efficient leadership in the context of team conflict largely relies on the **project manager's reflection skills**. Interestingly, research on team leaders with differing amounts of expertise shows that the ability to analyze team conflict correctly depends on the quality rather than the quantity of leadership experience (Rupprecht et al. 2010). These results suggest that effective conflict management can be promoted by encouraging project managers to reflect on their practical leadership experience. Project managers (much as other team leaders) need to become aware of the complex nature of team conflict. One way to address this is by dividing a complex problem into smaller problems that can be solved step-by-step, thus creating positive and empowering experiences both for the project team and for the project manager. In addition, Rupprecht et al. (2010) propose that team managers should provide regular reflection opportunities during teamwork in order to identify problems early on and prevent the conflict from escalating.

Upon identifying a team conflict, project managers should initiate steps toward team development by promoting constructive coping strategies. As a first step, they should set a good example by admitting fallibility and by actively asking for team members' contributions toward creating a constructive team climate (Nembhard and Edmondson 2006). By doing so, project managers can ensure that team members state their ideas openly, raise any concerns they might have, and feel safe to ask questions.

Finally, project managers can be seen as **boundary spanners**. They should act as negotiators between the team and its environment (illustrated by the surrounding circle in Fig. 10.2), for example by gathering information from external sources, by balancing external requests, and by reporting the project teams' (interim) results to top management or external customers who initiated the project. Boundary-spanning activities also concern the integration of diverse knowledge within the project team and contextual knowledge surrounding the project team (Ratcheva 2008). Moreover, boundary-spanning is necessary for protecting the project team from excessive external demands (Faraj and Yan 2009), which is particularly important considering the typical organizational setting of project teams as described in the beginning of this chapter (Fig. 10.1). Managing the project team's boundaries is an important leadership function for conflict prevention, in terms of ensuring efficient information flow, balancing intra-team processes and managing the interaction with the team's environment.

In sum, due to time constraints and pressure to succeed in project teamwork, professional conflict management during the course of a project is often a mere afterthought. The 'silver bullet', i.e. the most desirable route to efficient and trustful project team collaboration, lies in using preventive team diagnosis and team development early on, preferably when the team commences its work.

Moreover, it is important to allow for team reflection time throughout the course of a project. Ideally, a project team should be supported by a continuous team coaching process throughout the course of its project (Lehmann-Willenbrock and Kauffeld 2010).

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